EFFECT OF FAMILY ENVIRONMENT AND IMPULSIVITY ON COGNITIVE DISTORTION AND CERTAIN PSYCHOPATHOLOGICAL SYMPTOMS AMONG AIDS PATIENTS

SYNOPSIS FOR RESEARCH IN PSYCHOLOGY

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INTRODUCTION

Living with AIDS patients experiences multifaceted challenges that extend beyond the physical manifestations of the disease. The psychological and emotional well-being of AIDS patients is intricately intertwined with various factors, including their family environment and levels of impulsivity. The relationships were found between family dynamics, impulsivity, cognitive distortion, and psychopathological symptoms among individuals living with AIDS.

Cognitive Distortion

Cognition means acquiring and processing information about us and our world. It is a mental activity that goes on in the brain when a person is organizing and attempting to understand information and communicating information to others. This includes the ability to pay attention, remember, process information, solve problems, organize and reorganize information, communicate, and act upon information.

The concept of cognitive distortions was first introduced by Aaron Beck (1963, 1964) and Albert Ellis (1962). It is traditionally defined as fallacious reasoning that plays a crucial role in the emergence of certain mental disorders. Cognitive therapy in particular is based on the identification of these cognitive distortions within the everyday way of thinking of the patient, and their replacement by alternative reasoning.

The cognitive distortions are represented as one of the twelve following irrational modes of reasoning: 1. Emotional reasoning 2. Overgeneralization 3. Jumping to conclusions (or arbitrary inference) 4. Dichotomous reasoning 5. Should statements (Ellis 1962) 6. Fortune

telling or mind reading 7. Selective abstraction 8. Disqualifying the positive 9. Maximization and minimization 10. Catastrophism 11. Personalization 12. Labelling.

Cognitive distortions play a central role in the field of cognitive therapy. Considering also their widespread nature in normal reasoning, it is allowed to think however that an adequate understanding of the cognitive distortions proves also to be useful outside the field of psychopathology. Cognitive distortions can also be considered as part of the apparatus which constitutes *critical thinking*. For these reasons, it appears that the relationships between the different cognitive distortions could also turn out to be useful.

Cognitive distortion refers to the irrational or exaggerated thought patterns that can distort one's perception of reality and contribute to the development of psychopathological symptoms. Research conducted by Garcia et al. (2021) indicates that AIDS patients may experience cognitive distortions related to their illness, such as feelings of worthlessness, hopelessness, and catastrophic thinking. These distorted beliefs can perpetuate negative emotions and exacerbate psychological distress.

Family Environment

The family is traditionally seen as the basic foundation of society. Generally, the family can be seen as a group of people who have biological, emotional, or legal ties with each other (Bauserman, 2002). In different cultures, the term "family" may mean different things and a wide variation of families. It refers to usually people of two generations and two genders are involved (Ciechetti et al. 1995). It stems from the attitudes, behaviours, and habits that set the pattern for social development and adjustment. The child in the family is the recipient of whatever constructive influences may result from the interactions of his family with the social order. Family environment is related to characteristics of an adolescent’s personal development and social interaction. With the decrease in family cohesion, self-criticism, self-blame, hopelessness, helplessness, and preoccupation with danger increases. This phenomenon within

the family environment of adolescents will be prone to various kinds of mental health problems such as depression, anxiety disorders, emotional and behavioural problems, suicide, self-harming behaviour, substance abuse, pathological impulsiveness as well as psychosis or affective disorders.

Family is the first environment where the child feels, observes, and learns the emotional relationships (Warhol, 1998). Although potentially different for males and females, decreased family cohesion and increased inter-parental conflict can inadvertently provide family environments that are associated with increased feelings of loneliness, sadness, rejection, and dejection, which may be associated with problems in adolescents' social interactions (i.e., cognitive distortion, impulsiveness).

The family environment serves as a crucial determinant of the psychological resilience and coping mechanisms of AIDS patients. Research by Johnson et al. (2019) highlights the significance of familial support in buffering against the adverse effects of chronic illness, including AIDS. A nurturing and supportive family environment can mitigate feelings of isolation, reduce stress levels, and enhance the overall quality of life for AIDS patients.

Impulsivity:

Impulsivity is a multidimensional concept. It involves the tendency to act quickly and without reflection, having something to do with restraining one's behaviour, handling different emotions, rapid processing of information, novelty seeking, and the ability to delay gratification. Psychologists view it as a tendency to act on the spur of the moment, neither thinking, nor planning, nor considering potential risks and alternative modes of action (Plutchik & van Praag, 1995). The impulsive is a doer, not a thinker (Barratt, 1972). Douglas (1972) related it to the inability to sustain attention.

The concept of impulsivity covers a wide range of "actions that are poorly conceived, prematurely expressed, unduly risky, or inappropriate to the situation and that often result in

undesirable outcomes". It plays an important role in normal behaviour, as well as, in a pathological form, in many kinds of mental illnesses such as mania, personality disorders, substance abuse disorders, and attention-deficit/hyperactivity disorder. Impulsivity, characterized by a tendency to act on immediate urges without considering long-term consequences, is a psychological trait that can significantly influence the psychological well-being of individuals living with AIDS. Studies by Smith and Brown (2020) suggest that high levels of impulsivity may exacerbate risk-taking behaviours, reduce adherence to treatment regimens, and contribute to poor mental health outcomes among AIDS patients.

Certain psychopathological symptoms:

Psychopathological Symptoms are all about exploring problems related to mental health, how to understand them, how to classify them, and how to fix them. Because of this, the topic of certain psychopathological symptoms extends from research to treatment and covers every step in between. The better we can understand why a mental disorder develops, the easier it will be to find effective treatments. Signs of psychopathology vary depending on the nature of the condition. Some of the signs that a person might be experiencing some form of psychopathology include Changes in eating habits, Changes in mood, Excessive worry, anxiety, or fear, Feelings of distress, Inability to concentrate, Irritability or anger, Low energy or feelings of fatigue, Sleep disruptions, Thoughts of self-harm, or suicide, Trouble coping with daily life, Withdrawal from activities and friends.

AIDS patients are vulnerable to a range of psychopathological symptoms, including depression, anxiety, and post-traumatic stress disorder (PTSD), Psychosis, which can significantly impair their quality of life and adherence to treatment. Studies by Lee and Wong (2018) emphasize the bidirectional relationship between psychopathological symptoms and disease progression among AIDS patients, highlighting the importance of early intervention and comprehensive psychosocial support.

Review of Literature:

Numerous studies have documented a high prevalence of psychopathological symptoms among HIV patients. Anxiety, depression, PTSD, substance abuse, and cognitive impairment are among the most commonly reported symptoms. For instance, Smith et al. (2019) found that approximately 30% of HIV patients experienced clinically significant depressive symptoms. Similarly, Jones et al. (2020) reported a prevalence rate of 25% for anxiety disorders in HIV-infected individuals.

The study shows a better score for the physical domain, psychological domain, independence domain, social relationship domain, and environmental domain but a lower score for spirituality/ religion/ personal belief domain (Kuncheria et al., 2023), people living with HIV satisfaction regarding care could play an important role in the elimination of HIV epidemic by 2030 (Ouedraogo et al., 2023), one of the environments where people living with HIV/AIDS should feel safer is in the health care setting; however, scientific evidence has identified discriminatory behaviour on the part of health care professionals towards these people (Gázquez-López et al., 2023).

Treatment Adherence: Impulsivity has been consistently linked to poor adherence to ART among HIV patients. Individuals with high levels of impulsivity may struggle to adhere to medication schedules, leading to suboptimal viral suppression and increased risk of disease progression. Several studies have reported a negative correlation between impulsivity and ART adherence, highlighting the need for tailored interventions to improve medication adherence in this population (Smith et al., 2014; Gonzalez et al., 2016).

Risky Behaviours: Impulsivity is associated with engaging in risky behaviours such as unprotected sexual activity and substance abuse, which can increase the risk of HIV transmission and acquisition of other sexually transmitted infections. HIV patients with high levels of impulsivity may be more likely to engage in impulsive sexual encounters or substance

use, compromising their health as well as the health of their partners. Interventions targeting risk-reduction strategies and harm-reduction techniques may be beneficial for HIV patients with heightened impulsivity traits (Kalichman et al., 2013; Meade et al., 2019).

Psychopathology is correlated to concomitant high-risk public health sexual behaviour such as teenage pregnancy, sexually transmitted diseases (STDs) and HIV/AIDS existing in Jamaican society (Walcott & Hickling, 2013) Psychological Well-being: Impulsivity is also linked to adverse psychological outcomes in HIV patients, including higher rates of depression, anxiety, and substance use disorders. The presence of impulsivity traits may exacerbate existing mental health issues and reduce the overall quality of life for individuals living with HIV/AIDS. Addressing co-occurring mental health concerns through integrated treatment approaches that target both impulsivity and psychiatric symptoms may improve overall well-being and treatment outcomes in this population (Ciesla & Roberts, 2001; Lejuez et al., 2007). If unresolved adolescent feelings of loneliness can become an obstacle in the formation of normative social relationships through the development of anxiety and social avoidance (Lau & Kong, 1999; Vernberg et al., 1994). Stark et al. (1993) have suggested that disruptive/hostile family environments are associated with interpersonal deficits and difficulties during social interactions. Li, Wang, Cao, Gou, and Zhang (2013) found the physical and mental health of growing children, establishing a good school environment and family environment, and strengthening physical activities will contribute to reducing the incidence of depressive symptoms.

Zhang, Li, and Zou (2011) found lower levels of optimism, negative affectivity, and poor family cohesion factors were implicated in contributing to depression in Chinese adolescents. Becker-Weidman, Reinecke, Jacobs, Martinovich, Silva, and March (2009) found hopelessness was associated with greater depression severity, poor social problem-solving, cognitive distortions, and family conflict. View of self, view of the world, internal attributional

style, need for social approval, positive problem-solving orientation, and family problems consistently emerged as the best predictors of hopelessness in depressed youth.

The cognitive and familial factors predict those depressed youth who have high levels of hopelessness. Bond, Toumbourou, Thomas, Catalano, and Patton (2005) found depressive symptoms are strongly related to family factors such as poor family functioning. Miller and Glinski (2000) found that self-harming behaviours in young people are predicted by family discord including poor communication styles, parental mental health problems, family stress, abuse, and neglect.

Parenting styles are associated with poor child emotion regulation and dismissive and disapproving responses to displays of emotions (Gottman et al., 1997; Ramsden & Hubbard, 2002). Denham and colleagues (2000) found a similar relationship and concluded that dismissive parenting may be worse for children with more difficult temperaments. Roosa et al. (1993) identified a pathway from parental alcohol misuse and negative life events to unsupportive parenting behaviours and inconsistent discipline, relating in turn to child depression. Chen & Jacobsion (2013) found impulsivity may have a greater impact on adolescents' susceptibility to positive family influences than on their susceptibility to promotive factors from school or neighbourhood contexts. Barr et al. (2012) found low levels of family cohesion were predictive of delinquency after controlling for race, gender, past delinquency, and direct trauma.

Previous studies have provided an understanding of the positive influence of family environment on adolescent’s cognitive distortion and impulsivity. Most of the studies are conducted in Western countries and cultures. Indian studies related to family or parental factors mostly emphasized their association with mental health (Tiwari & Verma, 2013; academic school success and competence (Lakshmi & Arora, 2006); social development (Sharma & Vaid, 2005); self-identity (Sapru, 2006); and emotional autonomy (Tung & Dhillon, 2006).

The Rationale of the Study:

The family environment is the centre of their psychological well-being including cognitive health. Family environment and impulsivity will affect the cognitive function which leads to cognitive distortion, and certain psychopathological symptoms. These will affect thinking, emotion, and behaviour, and these impacts lead to poor decision-making, unplanned career, relationship issues, low-stress tolerance and as well as various mental health issues with AIDS patients. Youth at serious risk for cognitive distortion and impulsivity-related problems can be targeted fairly accurately to implement early prevention programs. The models that identify the concurrent risks indicate a reliable way to identify adults most at risk for cognitive distortions and certain psychopathological symptoms, which may lead to mental health issues and problematic impulsivity. Furthermore, unresolved questions regarding these relationships need to be examined within ethnically diverse aids patient populations with representative of the general population.

The ultimate goal of this study is to help AIDS patients live healthier, happier, and more productive lives. we aim to investigate the interplay between family environment, impulsivity, cognitive distortion, and psychopathological symptoms among AIDS patients. By examining how these factors interact and influence each other, we can gain valuable insights into the underlying mechanisms driving psychological distress in this population. Ultimately, identifying modifiable risk factors and protective factors within the family environment can inform targeted interventions aimed at improving the mental health outcomes of individuals living with AIDS.

METHODOLOGY

There is a scarcity of empirical research linking family environment and impulsivity to cognitive distortion and certain psychopathological symptoms among AIDS Patients in India as well as in other countries. So, the normal population of adults must be studied to explore the

phenomenon in the context of a family environment. In this regard, the present research is an attempt to bridge this gap. Based on the literature review, the following objectives and hypotheses are formulated:

Objectives:

1. To examine gender differences in cognitive distortion.
2. To ascertain gender differences in certain psychopathological symptoms of AIDS patients.
3. To explore the nature of the relationship between family environment and cognitive distortion.
4. To explore the nature of the relationship of family environment and certain psychopathological symptoms.
5. To explore the nature of the relationship between impulsivity and cognitive distortion.
6. To measure the relationship between impulsivity and certain psychopathological symptoms.
7. To determine the impact of family environment and impulsivity on cognitive distortion
8. To assess the role of family environment and impulsivity on certain psychopathological symptoms.

Hypotheses:

1. There will be a significant difference between males and females in the experience of cognitive distortion.
2. There will be significant differences between males and females in the psychopathological symptoms.
3. Family environment will be associated with cognitive distortion.
4. Family environment will be associated with psychopathological symptoms.

5. There will be a strong link between Impulsivity and certain psychopathological symptoms.
6. Impulsivity will be associated with cognitive distortion.
7. The family environment and impulsivity will moderate the experience of cognitive distortion
8. The family environment and impulsivity will moderate the experience of certain psychopathological symptoms.

Sample:

The present research will be undertaken on adult AIDS patients within the age range of 20 to 45 years. The respondents will be screened by GHQ-12. The true sample of 300 comprising an equal number of male and female AIDS patients will be selected using probability sampling.

Research Design:

Variable:

- Predictor variable- Family environment, Impulsivity
- Criterion variable- Cognitive distortion, Psychopathological Symptoms

Statistical Analysis:

The following statistical procedure or analysis will be used for testing of proposed hypotheses.

- Mean
- Standard Deviation (S.D.)
- t-test
- Analysis Of Variance (ANOVA)
- Multiple Regression Analysis

Measures:

1. Family Environment Scale:

The Family Environment Scale was developed by Bhatia H & Chadha N.K. The test reliability coefficient is 0.95. It is a 69-item five-point rating scale with qualitative norms of 'high', 'average', and 'low' on each subscale. It comprises three dimensions and eight subscales. The descriptions are given below:

2. Impulsiveness Scale:

The Impulsiveness scale is developed by Rai S.N. & Sharma A**.** This scale contains 30 items and measures the impulsive tendency of adolescents. There are two alternatives Yes and No. The reliability is .72, and the validity is .58.

3. Cognitive Distortion Scale (CDS):

The Cognitive Distortion Scale (CDS) was recently published in 2012, and developed by Sisodia D.S. and Sharma D. This scale consists of 25 items and can be administered to all age groups. The psychometric properties of this test are very good.

4. Millon Clinical Multi-Axial Inventory (MCMI-IV)

The MCMI-IV was published in 2015. This version contains 195 true-false items and takes approximately 25–30 minutes to complete. The MCMI-IV consists of 5 validity scales, 15 personality scales, and 10 clinical syndrome scales

5. General Health Questionnaire -12 (GHQ-12)

GHQ-12 was developed by Goldberg and was translated into Hindi by Gautam et al, 1987. This scale consists of 12 items and this version is in vogue. The scale has good reliability and validity. The scale is a quick and good instrument to screen for psychological morbidity.

Chapterisation:

1. Introduction
2. Review of literature
3. Methodology
4. Statistical Analysis

5. Result and Discussion
6. References
7. Appendix

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